

C L A I M S

1. A spray ring, for wetting char and/or slag in a water bath with a wetting fluid, the spray ring comprising a loop conduit arranged in a loop-line, which loop conduit is at an inlet point provided with an inlet for feeding the wetting fluid into the loop conduit in an inlet flow direction, and with a plurality of outlet openings for spraying the wetting fluid out of the loop conduit, wherein the inlet flow direction has a component that is tangential to a loop-line flow direction of the wetting fluid through the loop conduit at the inlet point.
2. The spray ring of claim 1, wherein the loop conduit forms a peripheral ambit around an encompassed area and whereby the outlet openings are directed such that the outlet flow direction of the wetting fluid has a component directed inwardly towards the encompassed area.
3. The spray ring of claim 1 or 2, wherein one or more of the outlet openings are provided with a connecting flange for holding flange-connectable nozzles.
4. The spray ring of any one of the previous claims, wherein the conduit forming the loop conduit has an internal cross sectional contour in a plane perpendicular to the loop-line flow direction that is free from a convex section.
5. The spray ring of any one of the previous claims, wherein the loop conduit extends in a two-dimensional plane and the inlet point is provided in the outer peripheral wall of the loop conduit.
6. The spray ring of any one of the previous claims, wherein a plurality of, preferably three or more, inlets are provided in a plurality of inlet points, whereby the inlet flow direction in each of the inlet points has a

component that is tangential to the loop-line flow direction in each inlet point.

7. The spray ring of claim 6, wherein the plurality of inlet points are equally distributed along the loop conduit.

8. The spray ring of any one of the previous claims, wherein the included angle between the inlet flow direction and the loop-line flow in each inlet point is less than 80°.

9. Reactor vessel comprising a reaction area and, disposed gravitationally lower than the reaction area, a slag water bath for holding water and receiving char and/or slag from the reaction area, and a spray ring according to any one of claims 1 to 6 arranged above the water surface.

10. The reactor vessel of claim 9, which reactor vessel is provided with an inlet port for connecting to a wetting fluid supply, whereby the inlet port is located gravitationally higher than the spray ring, and wherein the inlet opening of the spray ring is connected to the inlet port via an internal supply conduit.

11. The reactor vessel of claim 10, wherein the internal supply conduit extends exclusively non-horizontally.

12. The reactor vessel of claim 10 or 11, wherein the internal supply conduit is connected to the inlet port via a distribution box, which distribution box is provided with an access port in a wall part opposite the supply conduit and essentially in line with the supply conduit.

13. Method of wetting char and/or slag in a water bath with a wetting fluid, wherein a spray ring comprising a loop conduit arranged in a loop-line is provided gravitationally higher than the water bath, and wherein the wetting fluid is circulated through the spray ring along a loop-line flow direction by feeding the wetting fluid into the loop conduit in an inlet flow

- 15 -

direction having a component that is tangential to the loop-line flow direction of the wetting fluid through the loop conduit, wherein at the same time the wetting fluid is sprayed out of the loop conduit onto the char and/or

5

slag in the water bath.